

Amendments to the Drawings:

The attached sheets of drawings includes changes to Figs. 1-20. These sheets, which include Fig. 1-20, replace the original sheets including Figs. 1-20.

Attachment: Replacement Sheet

REMARKS/ARGUMENTS

In amended Figures 1-20, the drawings have been formalized.

Claims 1,5,6 and 13-28 remain in this application.

Claims 2 and 10 have been cancelled.

Claims 3,4,7-9,11 and 12 have been withdrawn.

Claim 26-28 has been added.

Claims 3,4,7-9,11 and 12 have been withdrawn as the result of an earlier restriction requirement.

In view of the examiner's earlier restriction requirement, applicant retains the right to present claims 3,4,7-9,11 and 12 in a divisional application.

In response to the Office Action of **July 10, 2008**, Applicant requests re-examination and reconsideration of this application for patent pursuant to 35 U.S.C. 132.

Objections to the Drawings

The drawings stand objected to as informal. New formalized drawings are included herewith and thus the Applicant's representative requests that this objection be removed.

Rejections under 35 USC 102(b)

Claims 1, 5, 6, 13-15 and 17-19 stand rejected under 35 U.S.C. 102(b) as being anticipated by Li et al. (5,258,015), the Examiner's position is respectfully traversed.

Li et al. discloses Locking Filament Caps for surgical procedures. The locking filament cap includes a collet 166 and a washer 162. The collet is provided with a central hole 167 to permit passage of a surgical filament 160. The collet is of generally flat cylindrical shape and includes a locking extension that is furcated into a plurality of flaps. Each flap has a tapered surface that extends to a tab 172 extending normal to the flap (Col. 7, lines 30-40). The washer includes includes a wedging aperture that includes a dissimilar taper than that of the flaps for forcing the flaps inward to grip the filament. In operation, the separated collet and washer are placed over the surgical filament, the filament is thereafter tensioned, and the washer 162 is moved into engagement with the collet until the tabs pass through the collet to prevent the washer from separating from the collet.

It is well established that in order for a claim to be anticipated "each and every element as set forth in the claim must be found, either expressly or inherently described, in a single prior art reference". *Verdegaal Bros. v. Union Oil Co. of*

California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987) (MPEP 2131). In the currently amended claims of the instant case the tapered surfaces of the collet member and the compression ring have tapered surfaces that are substantially the same to cause frictional engagement between a substantial portion of the inner tapered compression surface and the outer tapered compression surface to maintain engagement of said collet and said compression ring members and to compress the collet member. In contrast, Li et al. merely uses the tapers to wedge the flaps inward and tabs are used to prevent separation of the assembly. The dissimilar tapers are visible in Figs. 7 and 11. In addition, the specification does not teach or suggest the tapers are locking type tapers and only suggests that the locking tabs can be used to prevent separation of the components.

Therefore, because Li et al. does not teach or suggest cooperating tapered surfaces that are substantially the same to provide frictional engagement between the tapered surfaces to maintain engagement of the assembly, the Applicant's representative requests that this rejection be removed and the claims be allowed to issue.

Rejection under 35 USC 103(a)

Claims 20-25 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (5,258,015), the Examiner's position is respectfully traversed.

Li et al. discloses Locking Filament Caps for surgical procedures. The locking filament cap includes a collet 166 and a washer 162. The collet is provided with a central hole 167 to permit passage of a filament 160. The collet is of generally flat cylindrical shape and includes a locking extension that is furcated into a plurality of Each flap has a tapered surface that extends to a tab 172 extending normal to the flap (Col. 7, lines 30-40). In operation, the separated collet and washer are placed over the filament, the filament is thereafter tensioned, and the washer 162 is moved into engagement with the collet until the tabs pass through the collet to prevent the washer from separating from the collet.

It is well established that in order to establish a proper *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or combine the reference teachings. Second there must be a reasonable expectation of success. Finally, the prior art reference must

teach or suggest all of the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not base on applicant's disclosure *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP §2143-§2143.03.

With respect to the first criteria, the currently amended claims of the instant case require the outer tapered surface of the collet and the inner tapered surface of the compression ring to have substantially conjugate tapers to provide frictional locking engagement between the components. This engagement locks the assembly together without requiring tabs or the like to prevent unwanted loosening.

In contrast, the Li device includes tabs positioned at the distal end of the collet member and thus the tabs can only engage the washer member once they pass completely through it to lock the assembly together. The taper in the washer of Li is described as a wedge and is depicted in the figures as being substantially different in angle than that of the flaps. Therefore, Li et al. does not teach or suggest conjugate tapers that frictionally engage to maintain the assembly.

With respect to the second criteria, there could not be any expectation of success to assemble the Li device and rely on the tapers to maintain engagement of the assembly. The only mechanism

taught or suggested by Li for maintaining engagement of his Locking Filament Cap are the tabs that extend normal to the flaps. The tabs are positioned on the distal end of the flaps and can only engage the washer upon passing completely through the washer.

Finally, the Li reference does not teach or suggest all of the claim limitations of the instant invention. Li does not teach or suggest conjugate tapered compression surfaces that cooperate to maintain an assembly prior to or after final engagement of the components.

In light of all of the above remarks, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness and further contend that a person of ordinary skill in the art, having the Li et al. reference in front of him or her would not have the information and motivation necessary to arrive at Applicants' invention. Therefore, Applicant requests that this rejection be removed and the claims be allowed to issue.

Claim 16 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Li et al. (5,258,015) in view of Seyr et al. (2003/0009219)

Li et al. discloses Locking Filament Caps for surgical procedures. The locking filament cap includes a collet 166 and a washer 162. The collet is provided with a central hole 167 to

permit passage of a filament 160. The collet is of generally flat cylindrical shape and includes a locking extension that is furcated into a plurality of Each flap has a tapered surface that extends to a tab 172 extending normal to the flap (Col. 7, lines 30-40). In operation, the separated collet and washer are placed over the filament, the filament is thereafter tensioned, and the washer 162 is moved into engagement with the collet until the tabs pass through the collet to prevent the washer from separating from the collet.

Seyr et al. discloses a ligament fixation device for the fixation of a anterior cruciate ligament. The ligament fixation device is constructed to be inserted into a pre-drilled hole in the femur and/or tibia. The device includes a first surface spaced from a second surface. The first and second surfaces are joined by a side wall having a plurality of slits extending longitudinally along the side wall. A threaded shaft extends through the center of the fixation device and engages the first and second surfaces. Rotation of the threaded shaft causes the first and second surface to comer closer together expanding the side wall outward. When a predetermined tension is reached frangible portion in the threaded shaft breaks.

With respect to the first criteria, the currently amended claim 16 of the instant invention requires at least one groove on

the outer and/or inner tapered compression surface(s). The groove cooperates with a respective inner or outer tapered surface to allow the collet member and the compression ring to remain secured to each other while in the disengaged position. This construction allows the collet and compression ring members of the instant invention to be pre-assembled prior to use. The grooves are illustrated in Figs. 2-7, 11-12 and 19-20. In contrast, the Li device includes tabs positioned at the distal end of the collet member and thus the tabs can only engage the washer member once they pass completely through it. Pre-assembly of the Li device would not allow passage of the filament member through the collet, thus the two components can only be assembled during final engagement of the assembly. Therefore, Li et al. does not teach or suggest any such construction that would allow pre-assembly of the components prior to engagement of the assembly.

Sayr et al. does not teach or suggest any type of device that engages with tapers or uses a groove in combination with a taper to maintain an assembly prior to final engagement. Still yet the Sayr device utilizes his frangible stem in combination with a rotational torque to expand his device and does not disclose any type of device that utilizes a linear engagement. Eliminating rotational torque is one of the primary concerns of the instant invention.

With respect to the second criteria, there could not be any

expectation of success to assemble the Li device prior to full engagement. Nor could you combine the Li and Sayr devices. The only mechanism taught or suggested by Li for maintaining engagement of his Locking Filament Cap are the tabs that extend normal to the flaps. The tabs are positioned on the distal end of the flaps and can only engage the washer upon full engaged assembly.

Finally, neither the Li nor the Sayr reference teach or suggest all of the claim limitations of the instant invention. Li does not teach or suggest a groove positioned on a tapered compression surface that cooperates with an adjacently positioned surface to maintain an assembly prior to final engagement of the components. Sayr does not disclose any type of linear engaging assembly, does not include conjugate tapers and does not grip onto anything internal to the device such as a shank.


In light of all of the above remarks, Applicant respectfully submits that the Examiner has failed to establish a *prima facie* case of obviousness and further contend that a person of ordinary skill in the art, having the Li et al. reference in front of him or her would not have the information and motivation necessary to arrive at Applicants' invention. Therefore, Applicant requests that this rejection be removed and the claims be allowed to issue.

SUMMARY

In light of the foregoing remarks and amendment to the claims, it is respectfully submitted that the Examiner will now find the claims of the application allowable. Favorable reconsideration of the application is courteously requested. Should there be any remaining issues which can be resolved via an Examiner's Amendment; the Examiner is urged to call the undersigned in order to expedite the prosecution of this application.

The Commissioner for Patents is hereby authorized to charge any deficiency in any fees due or credit any overpayments in any fees paid on the filing to Deposit Account No. 13-0439.

Respectfully submitted,


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